Level up your game

The mobile metrics, reporting, and optimization you need for success

unity

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Choose Unity for Mobile

The life of a mobile game is a complicated thing, and it's important to understand that it doesn't end when you release it into the wild.

You've done the work, developing, testing and launching your game, but there's another step to consider before you reach your ultimate goal of engaged and happy users. You might call it the magic. It's an almost alchemical process of probing and refining the different elements of the experience you're offering.

For a game to be successful, those elements need to be more than just gameplay and graphics. You need to come to grips with the metrics that underpin everything your user base does. Whether that's recognizing your churn points – the moments when users give up on your game – or understanding how best to target different kinds of players, taking advantage of the data that your game provides has to be a key part of your strategy.

That magical formula for engagement, retention and growth is well within reach, so long as you know what you're looking for and how to find it. While the process is going to look slightly different for every game, there are universal metrics that will be the driving force behind all of the questions you should be asking. These revolve around engagement, IAP monetization, advertising monetization and user acquisition.

Whether your game's economy is powered by IAPs, adverts, a premium pay-to-play model, or a mixture of them all, delving deep into the information you collect will give you the best chance to optimize the experience of your most valuable players, and, in doing so, understand how to entice more users like them in the future.

With the data provided through the Unity engine, you can find out what makes your users tick, and learn when, how and why they're ticking the hardest. A smart, malleable and data-driven approach to your game's post-launch strategy can build you an audience of dedicated players who come back time and time again. And the best part is, this is a spell that anyone can learn how to cast.

Caption – Qui nem im rem. Et ea volesci llaudaere corersp eruptis dolor modit et aut

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Metrics, reporting and optimization

Metrics, reporting and optimization: These are the three basic ingredients you're going to need to combine together to create a successful game. But what are they? In the broadest sense, they're the data you collect from your users and what you do with it. They're the most important tools in your arsenal post-launch, and coming to grips with them early on in the process is super important.

The first step in your launch strategy is almost certainly going to be marketing campaigns. These are how you acquire players – once they've started playing your game, you're going to want to begin learning from them. The data you get from your players can be incredibly granular – we'll get into that later – but you'll want to utilize it to identify the most valuable users.

Essentially, that's your reporting and metrics portion. It's using the data to pinpoint the users who are making you the most money. Of course, it goes a lot deeper than that. The metrics will show you when users leave your game, where they come from, why, when and how much money they spend, and a whole lot more. You're going to want to use all of this information to reinvest in successful channels and to define your game's monetization strategy.

Fruit Ninja, by Halfbrick

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Remember that your metrics are going to be different depending on the kind of game you've created. The most valuable users could be the ones who spend the most time in your app, or they could be the ones spending the most on IAPs. You need to know exactly who you're trying to keep and what you need to do to keep them.

All of that information will teach you how to optimize the various aspects of your game. It's important here to expand your concept of what makes up your "game." Think of it as a web that extends out of the experience – from the gameplay itself to the avenues that lead players to reach your game, your advertising campaigns, marketing efforts and more. Everything can be tweaked and groomed to gather and retain users.

Once you've done all of that, well, it's time to do it all over again. This is a process that involves constant learning, reevaluation and research. Your players change, and your game is going to have to change with them. Let's put it this way: You can never be optimized enough.

In the next few chapters, we're going to take a more detailed look at some of the most important metrics to give you a better idea of what they are and how best to use them to get your game performing at the highest levels.

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Engagement metrics

The first metric we're going to look at is engagement. This is the metric that shows you how, when and why users are loading up your game. There are two key terms that you need to grasp here, DAU and MAU. DAU stands for daily active users, and MAU stands for monthly active users. Simply put, the higher your DAU and MAU, the bigger your game's user base.

With these two numbers, you can discover another really important stat: the stickiness of your game. Take your game's DAU and divide by your MAU to find out how often during a given month a user interacts with your game. That sort of information can prove super helpful when it's time to think about how to keep your most valuable users engaged.

And that brings us to the other important part of the engagement metrics, retention. This will tell you how well you're keeping your players, and it's a great example of how useful creating cohorts can be to organize and understand your users. Cohorts are a group of users defined by a specific piece of data – like the day they installed your game.

Retention is usually measured in three steps: day one, day seven and day 30. This metric allows you to track how many users come back to your game over that period. The higher the retention rate, the more players your game is keeping. If 1000 users download your game on Jan. 1, they become the cohort for that date. You can then discover how many stuck around after a week and after a month, using that data to understand where your users are leaving and which parts of your game are making your valuable users stay.

Engagement metrics also include the churn rate. This is all about when and how you lose your users, and we'll cover it in more detail in a later chapter. Then there's the conversion rate – this tells you how often a user completes a specific task. That task might be clicking on an ad, completing a level or buying an IAP, all of which can give you a much clearer picture of what your users are doing, when they're doing it and why.

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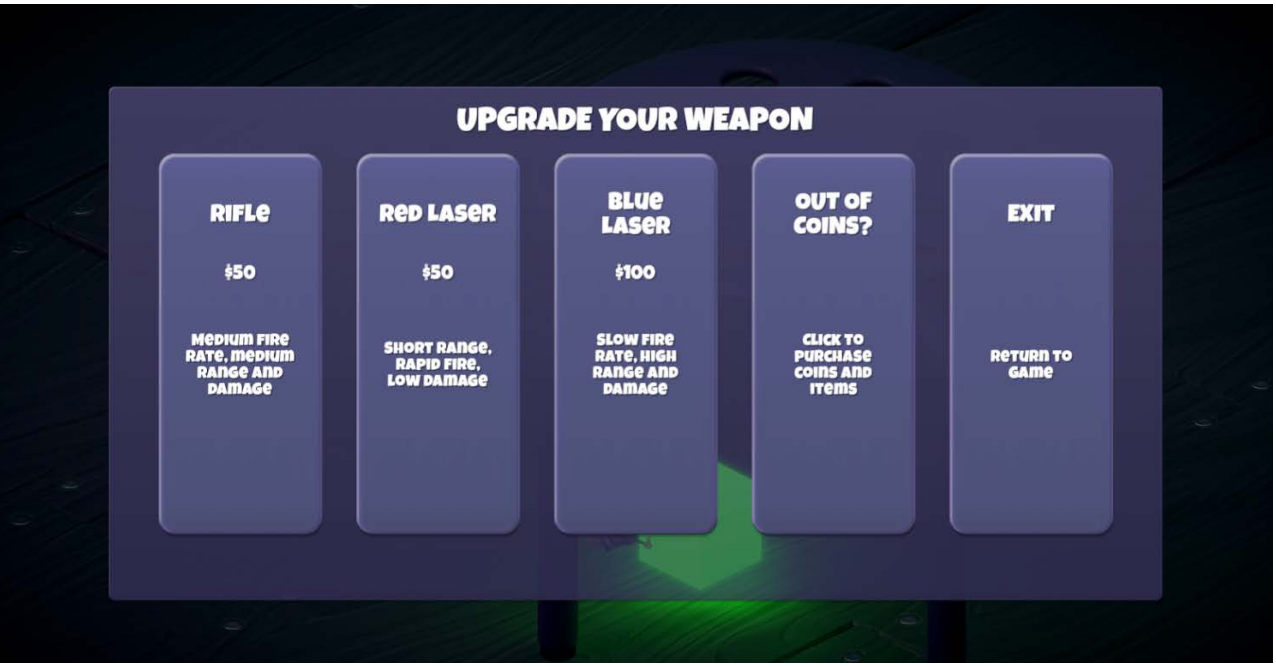
IAP and ad monetization metrics

Depending on the style of game you're making, these two metrics will give you all kinds of important information about how you're monetizing your users. We'll start off by looking at the most relevant slices of data if your game uses an IAP (in app purchase) monetization model.

One of the basic metrics here is the percentage of players who make at least one purchase, or the player conversion rate. This is going to be a pretty low figure – most games, even successful ones, have a player conversion rate of around about 5%. When you know the conversion rate, there's much more you can discover as well.

For starters, there's the average revenue per paying user, or ARPPU. This shows you the average spend and lets you get an overview of how much money you're making per paying user.

Then there's the average $ (this could also be pounds, euros or whatever currency you're using) per transaction. With this information, you can figure out the payment sweet spots. If the average spend per conversion is $3, you should definitely have an IAP that costs that much.



IAPs in a game

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The average number of transactions per payer is also important. Are your players buying one large IAP and then stopping, or are they buying lots of smaller ones over time? This knowledge can show you how to price your IAPs and when to encourage users to spend.

For games that use advertising as a monetization strategy, the core metric to look at is the eCPM – the effective cost per mille. Mille means thousand (it's Latin!). This shows you the amount of money you make per thousand ad impressions, so it's a good way to set your budgets and figure out where you can improve.

Next you've got the percentage use rate, which tells you the percentage of users who watch at least one ad. This is a key metric because it acts as an entry point into the rest of your ad funnel. It'll be different depending on the kind of ads you use. Forced interstitial ads, for example, which occur after a set amount of time or number of actions, will have a high percentage. For rewarded ads – ads where watching a video gives your player something – the stat will be lower.

You also need to think about the fill rate of your ads. This refers to the percentage of your ads that are filled by an ad network. Ideally it'd be 100%, but there are territories where ad networks don't have reach. Partnering with multiple networks can push this stat higher and increase global coverage.

Finally, there's the CVR, or conversion rate. We've mentioned conversion before, but here it refers to the number of users who click on an ad and install a game after watching it. This indicates the quality of your users to advertisers, and the data can be used to target players and change the kind of ads that they receive.

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User acquisition metrics

The last metric to really consider is user acquisition. This figure concerns how you bring users into your game and provides a better understanding of the pathways and entry points that your most valuable players are using to reach your app. There are two basic numbers that you need to be thinking about here.

One of them is the IPM – the installs per mille. This tells you the number of users who have downloaded your game per thousand that watch one of your adverts. This will let you know if you're targeting the right games with your ads, and show you where you can make improvements in your advertising budget.

Then there's the cost per install, or CPI. This shows you how much money you have to spend to get a user into your game. This is the money you're going to have to recoup to start turning a profit. The more you spend per install, the more you're going to have to make to balance out that price.

These metrics are crucial when it comes to understanding the top of your revenue funnel. From this basic understanding, you can dive deeper into the data to discover essential information about your players – who spends money, how they came by your app, and how you can snare more players like them in the future.

In-game ad

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The funnel and LTV

The funnel is how you work out the lifetime value, or LTV, of your players. Essentially, this is how much money you make from them over the span of their time playing the game. We're going to run a simple simulation of the funnel here to give you an idea of how to calculate the numbers.

At the top of the funnel is your user acquisition date. Let's say your CPI is 50c, and on day one of your app's launch you get 200,000 installs. Those 200,000 installs become the cohort for that day.

The next step of the funnel concerns itself with retention, or engagement metrics. Let's say that after one day you've got 50% retention – you're down to 100,000 users. By day 30 your retention rate is down to 5%, leaving you with 4000 users.

The final step of the funnel is the monetization step. If you have a 50% rate of ad watches, on the second day your cohort will be watching 50,000 ads, and by day 30 they'll be watching 2000.

For your IAPs, you've got a 5% conversion rate, which is about the industry standard. You'll be looking at 10,000 IAP purchases during the first 30 days of your app's life.

If you've got a $12 eCPM, you've had 900,000 ad watches during that first month, which equates to ad revenue of $10,800. If you've got a ARPPU of $5, then those 10,000 players will have spent $50,000 on IAPs during the time we're looking at.

That gives us a grand total of $68,000. In other words, by day 30, a user's LTV is around 60c. That's more than you spent on user acquisition, so you're going to be making money on each of those 100,000 users from your day one cohort.

The LTV stats are a great way to predict profit based on the relationship between the consumer and your product. They're going to help you set marketing budgets as well. Prelaunch, your focus will be on the CPI, but after time, you'll reach the point where you can be looking at the LTV instead.

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Coping with churn

The churn rate, as we mentioned earlier, is the number of users you're losing. Fortunately, there are plenty of ways that you can try and bring them back. According to stats from Adjust, 80% of your newly registered users will churn the day after they've installed your game.

Around 40% of users who uninstall your game will reinstall it at some point, and some 11% will come back after a three-month break. They're not lost forever, and the data those users provide you offers powerful insight to safeguard your app against further losses.

Understanding where and when your users are churning is a key to optimizing your game's experience. Are they hitting a tough challenge? Is there a paywall blocking them? Do you have your pacing slightly wrong? Listen to what your churned users are trying to tell you, and react accordingly.

One way to increase engagement and avoid churn is through push notifications. Adjust revealed a 2x retention rate for users who opt into push notifications. Keeping current users happy is often more important than bringing in new users – Adjust suggests a 152% higher engagement rate for current users over new users.

Cohorts will allow you to better understand, and better target, your churned and potentially churning users. The information is part of a constant conversation involving you, your players and the experience – and, much like a real conversation, a one-size-fits-all approach simply isn't going to work.

Genshin Impact, by miHoYo

Finding the sweet spot

Now that you've got an understanding of what these key metrics can do for your game, it's time to put that knowledge into action. Retention analysis is one part of this. It lets you use cohorts to find the average lifespan of users. From there, you can segment even further, discovering which users have a lower churn rate and which users cost less relative to their in-game lifespan.

Segmenting your users in this way lets you target them more effectively. Different cohorts are more likely to convert (complete the actions you want them to), meaning you can focus your efforts on them in innovative ways. That might involve targeted campaigns or working with partners like ad networks to drive growth.

Finding the churn spot (or spots) lets you set engagement cycles, ensuring that the right players are getting the right push at the right time to keep them playing. This is all part of the recipe to keep you poised for success.

Deep insight into the various metrics is key here, especially when it comes to churn points and retention. Upping your retention rate will raise your LTV, as will reactivating churned users. It's a good idea to sync all of your uninstall and reinstall information into your own CRM system as well, letting you power up your engagement strategy.

You can increase your ROI by optimizing the channels and networks that drive you the most engaged users – the ones who aren't dropping off and are spending the most on IAPs or watching the ads. Knowing where a user is in your funnel lets you target them more precisely with campaigns designed to keep them engaged.

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Casting your spell

Think of all of these data points as the ingredients you need to cast your spell. It isn't just a case of chucking them all into a cauldron and hoping for the best. Rather, you need to pay the utmost attention to the data that your players are providing you and figure out new and innovative ways to react to the changes and challenges that your data presents.

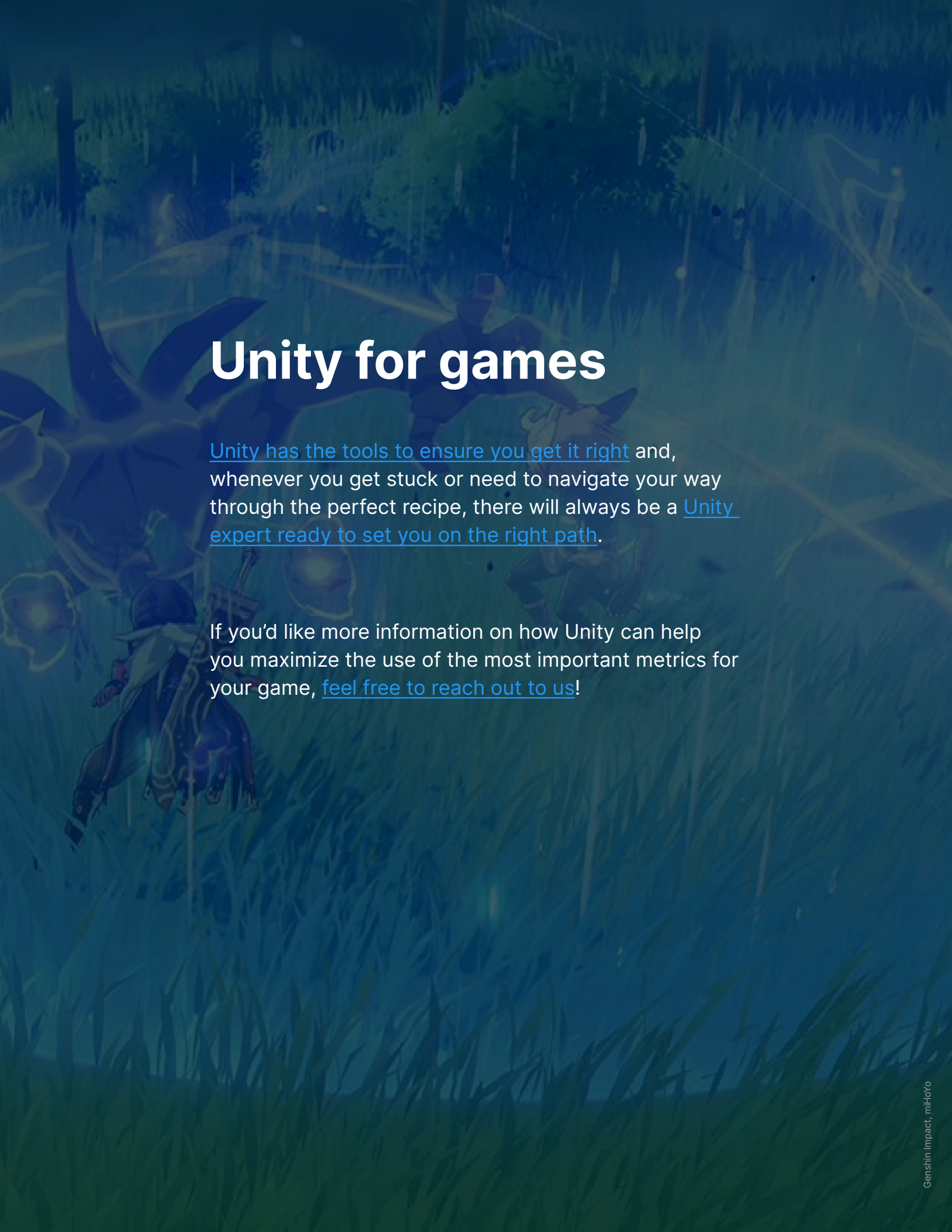
The more you know, the better you can cope with challenges, and the more useful your data is going to become. You can use it to pinpoint problem areas, focus on valuable users and optimize the experience of your players to maximize their engagement.

The spell is going to look different for different games, but the steps you take in the casting are going to be built around gathering the most pertinent and useful information. Whatever that information is, it's an incredibly powerful tool for optimizing your game and creating the one thing we're all looking for: happy and engaged players.

Unity for games

Unity has the tools to ensure you get it right and, whenever you get stuck or need to navigate your way through the perfect recipe, there will always be a Unity expert ready to set you on the right path.

If you'd like more information on how Unity can help you maximize the use of the most important metrics for your game, feel free to reach out to us!



Genshin Impact, miHoYo

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